MANUFACTURING I & II

OVERVIEW: TSA contestants in the Manufacturing Event are required to manufacture a product, and provide a description of how the product could be manufactured in a state-of-the-art global industry. This is a National Event.

I. CONTEST PURPOSE

The purpose of the Manufacturing Event is to provide a means for TSA members to demonstrate their ability to create a quality product with innovative features, which will have arelevant application for consumers.

II. ELIGIBILITY FOR ENTRY

A. Must be current TSA state and national member and registered State Conference participant.

B. This is an individual or team event. Entries are limited to two teams per chapter, maximum of four students per team, not to exceed eight members per chapter.

III. LIMITATIONS

A. A product, which conforms to the specifications listed here, will be turned in to designated personnel during Chapter Conference check-in.

D. The product, prototype jig fixtures, portfolio, etc., must be able to be displayed on a 3' x 8' table top.

C. Products shall not include combustible engines or require flammable fuels.

D. Products shall not require external AC power. Batteries may be used in the product.

E. A prototype is a full-size working model.

IV. SPECIFIC REGULATIONS

A. National rules may differ from state rules. Individuals planning on participating in national competition must adhere to national rules.

B. Each entry will consist of:

1. A product built by the contestants.
2. A manufacturing scenario (portfolio, photographs, prototype, etc.)
3. A bill of materials.

C. All of the above items must be produced or prepared by the contestants, during the current school year, on school premises.

D. Each entry will consist of a product which includes at least two or more materials selected from the following material groups:

1. Natural.
2. Synthetics.
3. Composites.

E. Each entry will include a bill of materials including costs. The cost of the materials used in the prototype is not limited; however, the judging criteria limits the impact of the prototype's expense. The bill of materials should also include the retail price of the product.

G. Each entry will include a manufacturing scenario. The purpose of the manufacturing scenario is to:

1. Allow the contestant an opportunity to describe the function of the product, how the product could be manufactured in a state-of-the-art manufacturing facility, and/or manufactured in a facility in which computers, robots, laser beams, etc., may be used. A brief explanation stating why the various materials are used in the product should also be included in the scenario. The scenario must be typed, double spaced, on one side of an 8½" x 11" paper. The total length of the scenario, excluding the bill of materials, may not be more than five, typed pages. Typed pages generated by a word processor are acceptable. The portfolio may include photographs taken during the entire process, including planning, mass production, and distribution.
2. Charts, graphs, illustrations and drawings may be included in an appendix following the five, typed pages of the scenario.
3. All paperwork, such as incorporation papers, shares of stock, etc., shall be included in the scenario.

H. Only original products designed by the contestants may be entered. A product made from a kit would not be considered a prototype. However, standard hardware, re-manufactured parts, and specialty items such as LED clocks, pens, bearings, gears, batteries, etc., could be purchased and used in the manufacture of the prototype/final product, but may not be considered as one or more of the type of required materials noted in IV. B.

V. PROCEDURES

A. Registration

1. Contest participants must register for the event in accordance with procedures established for the conference.
2. The manufactured product entry will be turned in to designated personnel during Chapter Conference check-in.

B. Entries may be picked up at the conclusion of the conference.

VI. CRITERIA FOR JUDGING

A. Product

1. Product appearance/quality.....30 points
2. Design.....20 points
3. Function ..... 15 points

B. Bill of Materials

1. Estimate of price/content/data..... 10 points

C. Manufacturing Scenario..... 25 points

Total..... 100 points
Rules Violation.....Minus 20 points